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SIVJI, NIZAR N	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/599,858	BAKER ET AL.	
	Examiner	Art Unit	
	NIZAR SIVJI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 11-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 October 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claim

1. Claim 1 -9, 11– 24 are currently pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. Claim 1, 9, 14, 18, 23, 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Van Beek (Van) Pub. No. 2002/0083465 in view of Moulsley Patent No. 6611514.

As Per Claim 1. Van teaches a method of operating a radio network comprising a primary station (PS) and a plurality of secondary stations (SSI, SS2, SS3) (i.e., the CATV system 8 according to FIG. 1 comprises a primary station or head end 2 and a plurality of secondary stations or network terminations 4.Para 17).

wherein the primary station determines the level of interest by users of secondary stations in a service by providing a plurality of random access slots that are selectively configured for permitting a temporary or permanent allocation of a portion of the plurality of random access slots based on the level of interest of the users of the secondary stations(i.e., the known CATV system (e.g. primary station) has, in the downstream direction, a frequency pass band comprising a plurality of substantially equally spaced and sized (6 MHz) frequency channels. This frequency band has a lower edge between 50 and 54 MHz and an upper edge that is implementation-dependent but is typically in the range of 300 to 864 MHz. Within that frequency band, (NTSC) analog television signals may be present, as well as other narrowband and wideband digital signals. All these signals are transmitted in 6-MHz frequency channels. Some of these frequency channels may carry data signals which are of interest for the secondary stations Para 8)

Van does not teach in detail that primary station determines the level of interest by users of secondary stations in a service by providing a plurality of random access slots that are selectively configured for permitting a temporary or permanent allocation of a portion of the plurality of random access slots.

However, the preceding limitation is known in the art of communications. Moulsley teaches that radio communication system comprising a primary station and a plurality of secondary station, the primary station having means for partitioning a single uplink transmission channel between random access and dedicated signalling transmissions from the secondary stations and means for allocating a time slot for a dedicated signalling transmission by a secondary station(Col 1 L 56 – 65). Thus, it is

obvious to one having ordinary skill in the art at the time the invention was made that primary station determines the level of interest by users of secondary stations in a service by providing a plurality of random access slots that are selectively configured for permitting a temporary or permanent allocation of a portion of the plurality of random access slots. Thus, the motivation will be that a random access channel and a dedicated signalling channel can be combined into a single physical channel using the same hardware for both access mechanisms.

As Per Claim 9. Van and Moulsley discusses the method as claimed in claim 1 as discussed above. Van further discusses that wherein a secondary station of the plurality of secondary stations indicates the level of interest by transmitting a predetermined signal in a preselected one of a plurality of random access slots (i.e., in the known CATV system (e.g. primary station) has, in the downstream direction, a frequency pass band comprising a plurality of substantially equally spaced and sized (6 MHz) frequency channels. This frequency band has a lower edge between 50 and 54 MHz and an upper edge that is implementation-dependent but is typically in the range of 300 to 864 MHz. Within that frequency band, (NTSC) analog television signals may be present, as well as other narrowband and wideband digital signals. All these signals are transmitted in 6-MHz frequency channels. Some of these frequency channels may carry data signals which are of interest for the secondary stations Para 8).

As Per Claim 14. Van and Moulsley discusses a method as claimed in claim 13 as discussed above. Van further teaches wherein when an estimated level of interest exceeds a predetermined level of interest, the primary station instructs the plurality of

secondary stations waiting to transmit in their allocated access slot not to transmit (i.e., frequency channels may carry data signals which are transmitted from the primary station 2 to the secondary stations 4. On initialization or after signal loss, a secondary station 4 has to acquire such a downstream frequency channel. For this purpose, the secondary station has acquired means which has non-volatile storage in which the last operational parameters (related to the last used downstream frequency channel or a preprogrammed frequency) are stored and which first tries to re-acquire this downstream frequency channel (the starting frequency). If this fails, the acquire means must begin to continuously scan the downstream frequency band until it finds a valid downstream frequency channel Para 17).

As Per Claim 18. Van teaches a radio network comprising a primary station (PS) and a plurality of secondary stations (SSI, SS2, SS3) (i.e., the CATV system 8 according to FIG. 1 comprises a primary station or head end 2 and a plurality of secondary stations or network terminations 4.Para 17),

wherein the primary station (PS) includes means for determining a level of interest by users of secondary stations in a service the means providing a plurality of random access slots that are selectively configured for permitting a temporary or permanent allocation of a portion of the plurality of random access slots based on the level of interest of the users of the secondary stations (i.e., in the known CATV system (e.g. primary station) has, in the downstream direction, a frequency pass band comprising a plurality of substantially equally spaced and sized (6 MHz) frequency channels. This frequency band has a lower edge between 50 and 54 MHz and an upper edge that is

implementation-dependent but is typically in the range of 300 to 864 MHz. Within that frequency band, (NTSC) analog television signals may be present, as well as other narrowband and wideband digital signals. All these signals are transmitted in 6-MHz frequency channels. Some of these frequency channels may carry data signals which are of interest for the secondary stations Para 8).

Van does not teach in detail that primary station determines the level of interest by users of secondary stations in a service, means providing a plurality of random access slots that are selectively configured for permitting a temporary or permanent allocation of a portion of the plurality of random access slots.

However, the preceding limitation is known in the art of communications. Moulsley teaches that radio communication system comprising a primary station and a plurality of secondary station, the primary station having means for partitioning a single uplink transmission channel between random access and dedicated signalling transmissions from the secondary stations and means for allocating a time slot for a dedicated signalling transmission by a secondary station(Col 1 L 56 – 65). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that primary station determines the level of interest by users of secondary stations in a service by providing a plurality of random access slots that are selectively configured for permitting a temporary or permanent allocation of a portion of the plurality of random access slots. Thus, the motivation will be that a random access channel and a dedicated signalling channel can be combined into a single physical channel using the same hardware for both access mechanisms.

As Per Claim 23. Van teaches a primary station for use in a radio network comprising at least one primary station (PS) and a plurality of secondary stations (SSI, SS2, SS3(i.e., the CATV system 8 according to FIG. 1 comprises a primary station or head end 2 and a plurality of secondary stations or network terminations 4.Para 17), wherein the primary station (PS) includes means for determining the level of interest by users of secondary stations in a service, the means providing a plurality of random access slots that are selectively configured for permitting a temporary or permanent allocation of a plurality of random access slots on the level of interest of the users of the secondary stations (i.e., the known CATV system (e.g. primary station) has, in the downstream direction, a frequency pass band comprising a plurality of substantially equally spaced and sized (6 MHz) frequency channels. This frequency band has a lower edge between 50 and 54 MHz and an upper edge that is implementation-dependent but is typically in the range of 300 to 864 MHz. Within that frequency band, (NTSC) analog television signals may be present, as well as other narrowband and wideband digital signals. All these signals are transmitted in 6-MHz frequency channels. Some of these frequency channels may carry data signals which are of interest for the secondary stations Para 8).

Van does not teach in detail that the primary station (PS) includes means for determining the level of interest by users of secondary stations in a service, the means providing a plurality of random access slots that are selectively configured for permitting a temporary or permanent allocation of a plurality of random access slots on the level of interest of the users of the secondary stations.

However, the preceding limitation is known in the art of communications. Moulsley teaches that radio communication system comprising a primary station and a plurality of secondary station, the primary station having means for partitioning a single uplink transmission channel between random access and dedicated signalling transmissions from the secondary stations and means for allocating a time slot for a dedicated signalling transmission by a secondary station(Col 1 L 56 – 65). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that the primary station (PS) includes means for determining the level of interest by users of secondary stations in a service, the means providing a plurality of random access slots that are selectively configured for permitting a temporary or permanent allocation of a plurality of random access slots on the level of interest of the users of the secondary stations. Thus, the motivation will be that a random access channel and a dedicated signalling channel can be combined into a single physical channel using the same hardware for both access mechanisms.

As Per Claim 24. Van teaches secondary station for use in a radio network comprising a primary station (PS) and a plurality of the secondary stations (SSI, SS2, SS3) (i.e., the CATV system 8 according to FIG. 1 comprises a primary station or head end 2 and a plurality of secondary stations or network terminations 4.Para 17).

wherein the primary station (PS) includes means for determining a level of interest by users of secondary stations in a service, the means providing a plurality of random access slots that are selectively configured for permitting a temporary or permanent allocation of a portion of the plurality of random access slots based on the level of

interest of the users of the secondary stations(i.e., the known CATV system (e.g. primary station) has, in the downstream direction, a frequency pass band comprising a plurality of substantially equally spaced and sized (6 MHz) frequency channels. This frequency band has a lower edge between 50 and 54 MHz and an upper edge that is implementation-dependent but is typically in the range of 300 to 864 MHz. Within that frequency band, (NTSC) analog television signals may be present, as well as other narrowband and wideband digital signals. All these signals are transmitted in 6-MHz frequency channels. Some of these frequency channels may carry data signals which are of interest for the secondary stations Para 8).

Van does not teach in detail that the primary station (PS) includes means for determining the level of interest by users of secondary stations in a service, the means providing a plurality of random access slots that are selectively configured for permitting a temporary or permanent allocation of a plurality of random access slots on the level of interest of the users of the secondary stations.

However, the preceding limitation is known in the art of communications. Moulsley teaches that radio communication system comprising a primary station and a plurality of secondary station, the primary station having means for partitioning a single uplink transmission channel between random access and dedicated signalling transmissions from the secondary stations and means for allocating a time slot for a dedicated signalling transmission by a secondary station(Col 1 L 56 – 65). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that the primary station (PS) includes means for determining the level of interest by users of

secondary stations in a service, the means providing a plurality of random access slots that are selectively configured for permitting a temporary or permanent allocation of a plurality of random access slots on the level of interest of the users of the secondary stations. Thus, the motivation will be that a random access channel and a dedicated signalling channel can be combined into a single physical channel using the same hardware for both access mechanisms.

4. Claim 6-8, 11-13, 20 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Beek (Van) Pub. No. 2002/0083465 in view of Moulsley Patent No. 6611514 and further in view of Salloum Salazar et al. Pub. No. 2003/0072321

As Per Claim 6. Van and Moulsley teaches a method as claimed in claim 1 as discussed above.

Van and Moulsley does not discuss in detail wherein each access slot of the plurality of random access slots includes a combination of one time slot and one signature, and wherein the primary station maps each of the plurality of random access slots to a different service such that all the secondary stations interested in one service transmit using one of a plurality of random access slots, and in that each combination of one time slot and one signature is contained in not more than one of the plurality of random access slots.

However, the preceding limitation is known in the art of communications. Solloum teaches in detail that the network entry procedures involve the determination of the transmission delay between the particular secondary station and the nominal strength with which the secondary station is received by the primary station. The

primary station determines from the measured transmission delay and the measured strength, a delay compensation value and an output power setting for the secondary station. These values are transmitted to the secondary station, together with the Terminal Identification Number (TIN). The secondary station adapts the transmission instants and the transmission power in accordance to the delay compensation value and the power setting received from the primary station. In this way it is ensured that the signals received from the secondary stations are correctly aligned with respect to the timeslot boundaries and that the signals from the different secondary stations are received with substantially the same strength by the primary station. The terminal number has to be included by the secondary station in the header of each packet it transmits to the primary station (Para 55). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that each access slot is characterized by a combination of one time slot and one signature, and wherein the primary station maps each plurality of access slots to a different service such that all secondary stations interested in one service transmit using one of a plurality of access slots, and in that each combination of one time slot and one signature is contained in not more than one of the pluralities of access slots. Thus, allowing the primary station to acquire a frequency channel relatively fast.

As Per Claim 7. Salloum, Moulsley and Van discusses a method as claimed in claim 6 as discussed above. Salloum further discusses that wherein each plurality of access slots is characterized in that each access slot in the plurality uses the same signature and in that each access slot in the plurality uses a different time slot (i.e., the primary

station determines from the measured transmission delay and the measured strength, a delay compensation value and an output power setting for the secondary station. These values are transmitted to the secondary station, together with the Terminal Identification Number (TIN). The secondary station adapts the transmission instants and the transmission power in accordance to the delay compensation value and the power setting received from the primary station Para 55).

As Per Claim 8. Salloum, Moulsley and Van discusses a method as claimed in claim 6 as discussed above. Salloum further discusses wherein each plurality of access slots is characterized in that each access slot in the plurality uses the same time slot and in that each access slot in the plurality uses a different signature (i.e., The primary station determines from the measured transmission delay and the measured strength, a delay compensation value and an output power setting for the secondary station. These values are transmitted to the secondary station, together with the Terminal Identification Number (TIN). The secondary station adapts the transmission instants and the transmission power in accordance to the delay compensation value and the power setting received from the primary station. In this way it is ensured that the signals received from the secondary stations are correctly aligned with respect to the timeslot boundaries and that the signals from the different secondary stations are received with substantially the same strength by the primary station Para 55).

As Per Claim 11. Van and Moulsley discusses a method as claimed in claim 1 as discussed above.

Van and Moulsley does not discuss in detail wherein the indications of interest are transmitted as spread spectrum signals and the number of indications is estimated by estimating the number of correlation peaks in a given access time slot.

However, the preceding limitation is known in the art of communications. Salloum teaches that the network entry procedures involve the determination of the transmission delay between the particular secondary station and the nominal strength with which the secondary station is received by the primary station. The primary station determines from the measured transmission delay and the measured strength, a delay compensation value and an output power setting for the secondary station. These values are transmitted to the secondary station, together with the Terminal Identification Number (TIN). The secondary station adapts the transmission instants and the transmission power in accordance to the delay compensation value and the power setting received from the primary station. In this way it is ensured that the signals received from the secondary stations are correctly aligned with respect to the timeslot boundaries and that the signals from the different secondary stations are received with substantially the same strength by the primary station (Para 55). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that the indications of interest are transmitted as spread spectrum signals and the number of indications is estimated by estimating the number of correlation peaks in a given access time slot. Thus, allowing the primary station to acquire a frequency channel relatively fast.

As Per Claim 12. Van and Moulsley discusses a method as claimed in claim 1 as discussed above.

Van and Moulsley does not discuss in detail wherein the indications of interest are transmitted as spread spectrum signals and the number of indications is estimated by estimating the received energy in a given access slot.

However, the preceding limitation is known in the art of communications. Salloum teaches that the network entry procedures involve the determination of the transmission delay between the particular secondary station and the nominal strength with which the secondary station is received by the primary station. The primary station determines from the measured transmission delay and the measured strength, a delay compensation value and an output power setting for the secondary station. These values are transmitted to the secondary station, together with the Terminal Identification Number (TIN). The secondary station adapts the transmission instants and the transmission power in accordance to the delay compensation value and the power setting received from the primary station. In this way it is ensured that the signals received from the secondary stations are correctly aligned with respect to the timeslot boundaries and that the signals from the different secondary stations are received with substantially the same strength by the primary station (Para 55). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that the indications of interest are transmitted as spread spectrum signals and the number of indications is estimated by estimating the received energy in a given access slot. Thus, allowing the primary station to acquire a frequency channel relatively fast.

As Per Claim 13. Van and Moulsley discusses a method as claimed in claim 1 as discussed above.

Van and Moulsley does not discuss in detail wherein the secondary stations are allocated to a respective one of two or more pluralities of access slots and in that a secondary station wishing to transmit an indication of interest, transmits in its allocated plurality of access slots.

However, the preceding limitation is known in the art of communications. Salloum teaches that in TDMA (Time Division Multiple Access) the time axis is divided into a plurality of time slots, in each of which a different secondary station can transmit information to the primary station (Para 7). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that the secondary stations are allocated to a respective one of two or more pluralities of access slots and in that a secondary station wishing to transmit an indication of interest, transmits in its allocated plurality of access slots. Thus, allowing the primary station to acquire a frequency channel relatively fast by transmitting the information.

As Per Claim 20. Van and Moulsley teaches a radio network as claimed in claim 18 as discussed above.

Van and Moulsley does not discuss in detail wherein each access slot is characterized by a combination of one time slot and one signature, wherein the primary station (PS) comprises means for mapping each plurality of access slots to a different service such that all secondary stations interested in one service transmit using one of a

plurality of access slots, and wherein each combination of one time slot and one signature is contained in not more than one of the pluralities of access slots.

However, the preceding limitation is known in the art of communications. Solloum teaches that the network entry procedures involve the determination of the transmission delay between the particular secondary station and the nominal strength with which the secondary station is received by the primary station. The primary station determines from the measured transmission delay and the measured strength, a delay compensation value and an output power setting for the secondary station. These values are transmitted to the secondary station, together with the Terminal Identification Number (TIN). The secondary station adapts the transmission instants and the transmission power in accordance to the delay compensation value and the power setting received from the primary station. In this way it is ensured that the signals received from the secondary stations are correctly aligned with respect to the timeslot boundaries and that the signals from the different secondary stations are received with substantially the same strength by the primary station. The terminal number has to be included by the secondary station in the header of each packet it transmits to the primary station (Para 55). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made each access slot is characterized by a combination of one time slot and one signature, wherein the primary station (PS) comprises means for mapping each plurality of access slots to a different service such that all secondary stations interested in one service transmit using one of a plurality of access slots, and wherein each combination of one time slot and one signature is contained in not more

than one of the pluralities of access slots. Thus, allowing the primary station to acquire a frequency channel relatively fast.

As Per Claim 21. Van and Moulsley teaches a radio network as claimed in claim 18 as discussed above.

Van and Moulsley does not discuss in detail comprising spread spectrum transceiving means and wherein the estimating means is adapted to estimate the level of interest by estimating the number of correlation peaks in a respective access slot.

However, the preceding limitation is known in the art of communications. Solloum teaches that the network entry procedures involve the determination of the transmission delay between the particular secondary station and the nominal strength with which the secondary station is received by the primary station. The primary station determines from the measured transmission delay and the measured strength, a delay compensation value and an output power setting for the secondary station. These values are transmitted to the secondary station, together with the Terminal Identification Number (TIN). The secondary station adapts the transmission instants and the transmission power in accordance to the delay compensation value and the power setting received from the primary station. In this way it is ensured that the signals received from the secondary stations are correctly aligned with respect to the timeslot boundaries and that the signals from the different secondary stations are received with substantially the same strength by the primary station Para 55). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made spread spectrum transceiving means and wherein the estimating means is adapted to estimate

the level of interest by estimating the number of correlation peaks in a respective access slot. Thus, allowing the primary station to acquire a frequency channel relatively fast.

As Per Claim 22. Van and Moulsley teaches a radio network as claimed in claim 18 as discussed above.

Van and Moulsley does not teach comprising spread spectrum transceiving means and wherein the estimating means is adapted to estimate the level of interest by estimating the received energy in a respective access slot.

However, the preceding limitation is known in the art of communications. Solloum teaches that the network entry procedures involve the determination of the transmission delay between the particular secondary station and the nominal strength with which the secondary station is received by the primary station. The primary station determines from the measured transmission delay and the measured strength, a delay compensation value and an output power setting for the secondary station. These values are transmitted to the secondary station, together with the Terminal Identification Number (TIN). The secondary station adapts the transmission instants and the transmission power in accordance to the delay compensation value and the power setting received from the primary station. In this way it is ensured that the signals received from the secondary stations are correctly aligned with respect to the timeslot boundaries and that the signals from the different secondary stations are received with substantially the same strength by the primary station (Para 55). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that the spread

spectrum transceiving means and wherein the estimating means is adapted to estimate the level of interest by estimating the received energy in a respective access slot. Thus, allowing the primary station to acquire a frequency channel relatively fast.

5. Claim 2-5, 15 – 17, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Beek (Van) Pub. No. 2002/0083465 in view of Moulsley Patent No. 6611514 and further in view of Cooper Pub. No. 2002/0069038

As Per Claim 2. Van and Moulsley teaches a method as claimed in claim 1 as discussed above. Van further teaches wherein the primary station estimates the level of interest from the number of transmitted indications and selects a transmission mode of the service in dependence on whether the level of interest is relatively high or relatively low (i.e., the known CATV system (e.g. primary station) has, in the downstream direction, a frequency pass band comprising a plurality of substantially equally spaced and sized (6 MHz) frequency channels. This frequency band has a lower edge between 50 and 54 MHz and an upper edge that is implementation-dependent but is typically in the range of 300 to 864 MHz. Within that frequency band, (NTSC) analog television signals may be present, as well as other narrowband and wideband digital signals. All these signals are transmitted in 6-MHz frequency channels. Some of these frequency channels may carry data signals which are of interest for the secondary stations Para 8).

Van and Moulsley does not discuss in detail whether the level of interest is relatively high or relatively low.

However, the preceding limitation is known in the art of communications. Cooper teaches that the forward error correction parameters requires balancing the amount of overhead added by the error correcting code (because the error correcting codes utilizes bandwidth that could have been used for information and therefore decreases information through-put) and the amount of error correction needed due to channel conditions (which may serve to increase data through-put through avoidance of retransmission). In the optimum situation, to maximize through-put of information over a given communications channel, the error correcting code would utilize precisely enough error correction to compensate for the existing noise level, no more or no less (Para 22). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that primary station estimates the level of interest. Thus, minimizing the through-put delay or latency in the communication equipment.

As Per Claim 3. Van and Moulsley and Cooper discuss a method as claimed in claim 2 as discussed above. Cooper further teaches wherein the transmission mode for the relatively high level of interest is point- to-multipoint (i.e., the primary station 101 can be a simple transmitter for point - point- to- or point- to-multipoint communications with one or more of the secondary stations 110, 112, 114, and 116. In another embodiment, the primary station 101 can be a bi-directional transceiver for point - point- to- and point- to-multipoint communications with the secondary stations 110, 112, 114, and 116. Para 17).

As Per Claim 4. Van, Moulsley and Cooper discuss a method as claimed in claim 2 as discussed above. Cooper further teaches wherein the transmission mode for a relatively

low level of interest is point- to-point (i.e., the primary station 101 can be a simple transmitter for point - point- to- or point- to-multipoint communications with one or more of the secondary stations 110, 112, 114, and 116. In another embodiment, the primary station 101 can be a bi-directional transceiver for point - point- to- and point- to-multipoint communications with the secondary stations 110, 112, 114, and 116. Para 17).

As Per Claim 5. Van and Moulsley and Cooper discuss a method as claimed in claim 2 as discussed above. Moulsley further teaches wherein the primary station sets a threshold level for determining the transmission mode of the service (i.e., 912, this ratio is tested to determine if it is exceeds a first threshold T1. If it does then the load on the random access transmissions is significantly higher than that on the dedicated signalling transmissions, and the BS 100 increases at 914 the proportion of the frames 202 allocated to random access transmissions Col 6 L 66 – Col 7 L 5).

As Per Claim 15. Van and Moulsley discusses a method as claimed in claim 1 as discussed above. Van discusses in detail wherein a secondary station of the plurality of secondary stations indicating an interest in a service(i.e., the known CATV system (e.g. primary station) has, in the downstream direction, a frequency pass band comprising a plurality of substantially equally spaced and sized (6 MHz) frequency channels. This frequency band has a lower edge between 50 and 54 MHz and an upper edge that is implementation-dependent but is typically in the range of 300 to 864 MHz. Within that frequency band, (NTSC) analog television signals may be present, as well as other narrowband and wideband digital signals. All these signals are transmitted in 6-MHz

frequency channels. Some of these frequency channels may carry data signals which are of interest for the secondary stations Para 8).

Van and Moulsley does not discuss in detail quality level for receiving the service.

However, the preceding limitation is known in the art of communications. Cooper discusses (i.e., The receiving unit, such as the primary station 101 uses the error correcting code to detect received errors in the information data and to correct as many detected errors as permitted by the number of error correcting bits (or bytes). As a consequence, the receiving unit must know, prior to the receipt of the data, the type of error correcting code employed at the transmitter so that proper decoding and error correction can be accomplished at the receiver. This exchange of forward error correction parameters may be accomplished by prior arrangement during a parameter exchange message sequence, which may occur at fixed periodic intervals or at sporadic intervals that coincide with changes in the quality of the communications link. Para 19). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that a secondary station indicating an interest in a service also quality level for receiving the service. Thus, will change the quality of the communications link.

As Per Claim 16. Van and Moulsley and Cooper discusses the method as claimed in claim 15 as discussed above, Cooper further teaches wherein the primary station transmits a higher quality level of service in a mode different from the transmission of a lower quality level of service (i.e., The receiving unit, such as the primary station 101 uses the error correcting code to detect received errors in the information data and to

correct as many detected errors as permitted by the number of error correcting bits (or bytes). As a consequence, the receiving unit must know, prior to the receipt of the data, the type of error correcting code employed at the transmitter so that proper decoding and error correction can be accomplished at the receiver. This exchange of forward error correction parameters may be accomplished by prior arrangement during a parameter exchange message sequence, which may occur at fixed periodic intervals or at sporadic intervals that coincide with changes in the quality of the communications link. Para 19).

As Per Claim 17. Van and Moulsley discusses the method as claimed in claim 1 as discussed above.

Van and Moulsley does not discuss in detail wherein the primary station transmits a basic data stream as a point-to-multipoint transmission and a supplementary data stream for enhancing the quality of the basic data stream as a point-to-point transmission.

However, the preceding limitation is known in the art of communications. Cooper discusses that the primary station 101 can be a simple transmitter for point - point- to- or point- to-multipoint communications with one or more of the secondary stations 110, 112, 114, and 116. In another embodiment, the primary station 101 can be a bi-directional transceiver for point - point- to- and point- to-multipoint communications with the secondary stations 110, 112, 114, and 116. (Para 17). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made characterized in that the primary station transmits a basic data stream as a point-to-multipoint

transmission and a supplementary data stream for enhancing the quality of the basic data stream as a point-to-point transmission. Thus, minimizing the through-put delay or latency in the communication equipment.

As Per Claim 19. Van and Moulsley teaches the method as claimed in claim 1 as discussed above. Van teaching further comprising estimating means for estimating the level of interest from the number of transmitted indications (i.e., the known CATV system (e.g. primary station) has, in the downstream direction, a frequency pass band comprising a plurality of substantially equally spaced and sized (6 MHz) frequency channels. This frequency band has a lower edge between 50 and 54 MHz and an upper edge that is implementation-dependent but is typically in the range of 300 to 864 MHz. Within that frequency band, (NTSC) analog television signals may be present, as well as other narrowband and wideband digital signals. All these signals are transmitted in 6-MHz frequency channels. Some of these frequency channels may carry data signals which are of interest for the secondary stations Para 8) and

Van and Moulsley does not teach mode selection means for selecting a transmission mode of the service in dependence on whether the level of interest is relatively high or relatively low.

However, the preceding limitation is known in the art of communications. Cooper teaches that the forward error correction parameters requires balancing the amount of overhead added by the error correcting code (because the error correcting codes utilizes bandwidth that could have been used for information and therefore decreases information through-put) and the amount of error correction needed due to channel

conditions (which may serve to increase data through-put through avoidance of retransmission). In the optimum situation, to maximize through-put of information over a given communications channel, the error correcting code would utilize precisely enough error correction to compensate for the existing noise level, no more or no less (Para 22). Therefore, it is obvious to one having ordinary skill in the art at the time the invention was made that primary station estimates whether the level of interest is relatively high or relatively low. Thus, minimizing the through-put delay or latency in the communication equipment.

Response to Arguments

Applicant's arguments with respect to claim 1 - 24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIZAR SIVJI whose telephone number is (571)270-7462. The examiner can normally be reached on 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/NIZAR SIVJI/
Examiner, Art Unit 2617